SUPPORT FOR THE AMENDMENTS

The amendment to Claim 5 is supported by the specification at, *inter alia*, page 4, lines 17 and 18. Accordingly, no new matter is believed to have been added to the present application by the amendments submitted above.

REMARKS

Claims 5-30 remain pending. Favorable reconsideration is respectfully requested.

Applicants would like to thank Examiners Stulii and Weinstein for the helpful and courteous discussion held on May 4, 2009. During the discussion the amendments presented above were discussed along with differences between the present invention and the cited references. The following remarks expand on the discussion with the Examiners.

The present invention relates to a raw material liquid for a carbonated beverage, comprising Aspartame as a sweetener and an amount of an emulsifier having an HLB value of 1 to 14 or/and an emulsifier having a molecular weight of 50 to 300 sufficient to eliminate the formation of foam caused by the Aspartame. See Claim 5.

The rejection of the claims under 35 U.S.C. §103(a) over Morey in view of Cho et al. is respectfully traversed. The cited references fail to suggest the claimed composition.

Morey discloses a cup coated with an anti-foaming agent to limit the amount of foam produced when a carbonated beverage is poured into the cup, in particular beverages containing Aspartame. See the Abstract and column 1, lines 22-25. At column 2, lines 50-65 the reference discloses the use of dimethylsiloxane antifoaming agent-- i.e., silicone-based materials.

The Examiner recognizes that Morey applies the antifoaming agent to a cup and not as part of the beverage in the cup. However, the Examiner asserts that:

> although Morey applies the anti-foaming agent to the cup, *it does become part of the beverage when the beverage is added to the cup*. See the Office Action dated January 12, 2009 at the last three lines of page 2; emphasis added.

The Examiner has provided absolutely no evidence that the anti-foaming agent leeches out of the cup and into the beverage to any appreciable extent. This is sheer speculation. There is certainly no disclosure or suggestion that the amount of antifoaming

agent is sufficient to eliminate the formation of foam caused by the Aspartame, as explicitly recited by Claim 5.

If the anti-foaming agent becomes part of the beverage when the beverage is added to the cup, it takes some time to eliminate the formation of foam, i.e., time to dissolve the anti-foaming agent and time for the anti-foaming agent to disperse to a uniform concentration.

Morey discloses, in column 4, line 12 that "it will be apparent that the present invention is adapted for use with finished, ready-to-drink carbonated beverages." Morey obviously targets a situation related to serving a carbonated beverage to be consumed immediately.

When a carbonated beverage is bottled, the speed of filling a bottle in a factory is faster than the speed of filling a drinking cup. Morey does not disclose or suggest that applying the anti-foaming agent (making a thin film of the anti-foaming agent) to a bottle in a bottling step in a bottling factory can eliminate the formation of foam.

The Examiner also recognizes that Morey does not describe an emulsifier having an HLB value of 1 to 14 or an emulsifier having a molecular weight of 50 to 300. See the top of page three of the Office Action.

To bridge this gap, the Examiner cited Cho et al. That reference describes carbonated coffee drinks. In column 1 of the reference, Cho et al. provide a detailed description that coffee contains "colloidal material" which is called "the soul of coffee." Cho et al. explain that while these colloidal materials are important for flavor, they cause bubbling. This bubbling makes it difficult to dispense coffee-based beverages. Cho et al. are, however, not even suggestive of the Aspartame-attributable bubbling or foam or any way of solving such a problem. In fact, Cho et al. use sugar as a sweetener, which does not cause bubbling.

Cho et al. describe the use of one or more of glycerin fatty acid esters, sorbitan fatty esters, propylene glycol fatty acid esters and silicone resin with a coffee syrup, which has, in

turn, been prepared from a coffee extract and sugar syrup.. The resulting syrup is then carbonated to produce a carbonated coffee drink. See the abstract and column 2, lines 53-65. These materials reduce the amount of undesirable bubbling.

Cho et al. indeed disclose, e.g., glycerin fatty acid ester exemplified by glycerin mono-oleate (column 3, lines 24-25 and column 4, lines 24-25), but fails to suggest an emulsifier having a HLB value of 1 to 14 or a molecular weight value of 50 to 300, which is especially effective to eliminate formation of foam caused by aspartame. Cho et al. only disclose several kinds of emulsifiers to suppress bubbling caused by the colloidal material.

The combination of Morey and Cho et al. fails to suggest the claimed liquid. Morey relates to the problem of foaming caused by Aspartame. In contrast, Cho et al. are concerned with bubbling caused by the colloidal material contained in coffee. In fact, Aspartame is not even mentioned by Cho et al. in the preparation of carbonated coffee drinks. There is certainly no recognition in Cho et al. that Aspartame produces foam. Since Morey and Cho et al. are solving two very different types of foaming problems, one would not be motivated to use the additives described by Cho et al. in the cup described by Morey.

Moreover, one skilled in the art would not conceive of replacing a glycerin fatty acid ester or silicone resin, as disclosed by Cho et al., with dimethyl-polysiloxane antifoams, in order to eliminate foam attributable to Aspartame, and to be used in a beverage and not as a coating on the inner surface of a drinking cup, as described by Morey et al.

Accordingly, there is no *prima facie* case of obviousness.

In addition, from the Examiner's fact-findings that anti-foaming agents are equivalently effective, regardless of the differences in causes of bubbling or foaming, i.e., attributable to aspartame (Morey) or attributable to colloidal material (Cho et al.), one would conclude that the silicone-based anti-foams of Morey and the glycerin fatty acid ester anti-foam of Cho et al. are equivalently effective, also in the case of the present invention. This

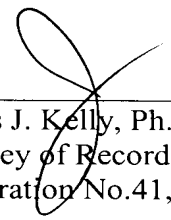
is, however, decisively not the case. In fact, the data presented in the specification demonstrates that the claimed emulsifier is more effective in preventing foam as compared to a silicone-based anti foaming as described by Morey. Table 2 at page 11 of the specification describes the preparation of three cola-flavored liquids. The Control contains no anti foaming agent. Trial 1 contains the emulsifier of the present invention. Trial Sample 2 contains a silicone emulsifier. As reported at the bottom of page 11 of the specification and as shown in the Figures of the application, Trial Sample 1 had a higher foam-eliminating effect as compared to Sample 2. These results demonstrate that the emulsifier of the present invention is superior to the silicone-based material. This result could not be predicted from the combination of Morey and Cho et al. Morey fails to disclose the claimed emulsifier and Cho et al. fail to even mention the presence of Aspartame in a carbonated beverage.

In view of the foregoing, the claimed raw material liquid is not suggested by the combination of Morey and Cho et al. Accordingly, the subject matter of Claims 5-30 is not obvious over those references. Withdrawal of this ground of rejection is respectfully requested.

Applicants submit that the present application is in condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



James J. Kelly, Ph.D.
Attorney of Record
Registration No.41,504

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)